



A User's Guide to Preventive Care Assessment: Using your EHR to Improve Practice

**IMPROVE: Improving Practice Outcomes via Electronic Health
Records**



**Deliver Primary Healthcare Information Project (DELPHI)
The Centre for Studies in Family Medicine**

A User's Guide to Preventive Care Assessment: Using your EHR to Improve Practice

ACKNOWLEDGMENTS

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A. Introduction & Overview

The DELPHI (Deliver Primary Healthcare Information) project at the Centre for Studies in Family Medicine contributed infrastructure which facilitated the uptake of electronic health records (EHRs) in participating Southwestern Ontario family practices with the intent of creating a researchable database built from pooled EHR data.

As more family practitioners in Ontario use computers to manage patient records, their requirement for generating summary data about their patient population increases. For example, to identify eligible women that could benefit from a mammogram, physicians require specific data extraction skills.

Thus, the DELPHI team began a subsequent project: IMPROVE (Improving Practice Outcomes via Electronic Health Records). This sub-project gave physicians: feedback about the extent to which they were providing various preventive care services; and hands-on training to generate lists of patients from their own database who could benefit from preventive care services including mammograms, pap smears, immunizations, fecal occult blood tests, and microalbumin creatinine ratio tests. The use of these skills has the potential to improve population health due to increased early detection of disease.

This guide is intended to provide aid to you and your practice by giving you step-by-step instructions to generate these lists of eligible patients on your own and to bring about self awareness of your preventive care level of service. It is important to gather information about your patient population in order to provide the best care possible.

In addition, information on further application of this toolkit to obtain potential CME credits through the College of Family Physicians of Canada Pearls™ program is provided.

Note: All practices within the DELPHI study use Healthscreen™ EMR software and all examples and screenshots use this software.

The Canadian Task Force on Preventive Health Care recommends that several preventive care services be routinely provided to eligible patients in primary care settings.

B. Conducting Your Preventive Care Assessment

Generating Lists of Patients Eligible for Preventive Care Services: How To In Healthscreen™

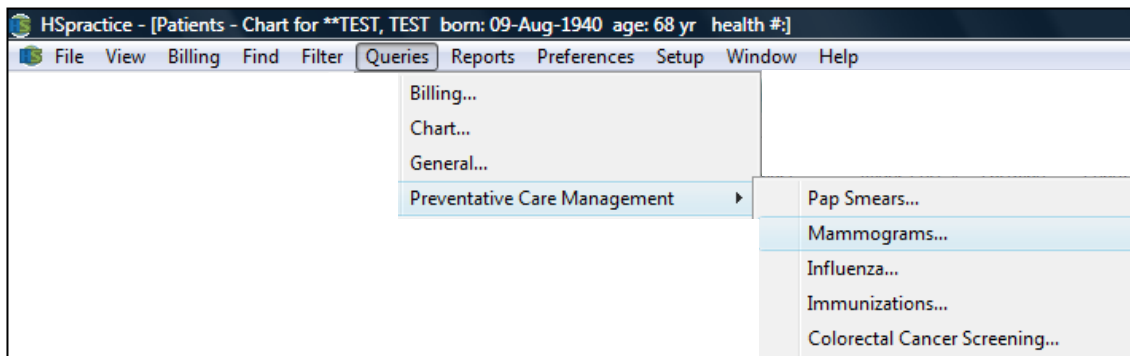
MAMMOGRAMS

Ministry of Health and Long-Term Care's Preventive Care Service Recommendation

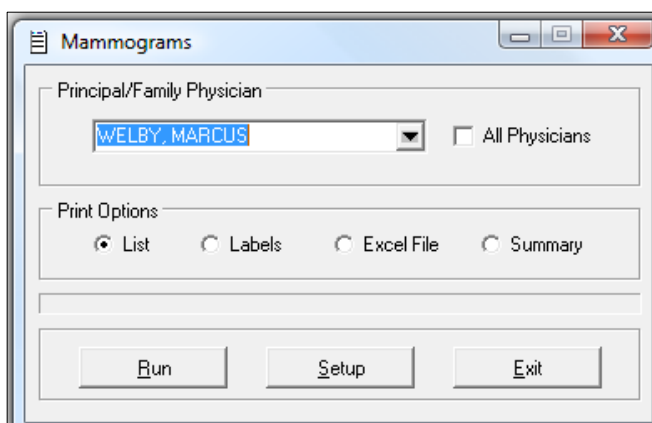
"As of January 2008, a minimum of 55% of eligible enrolled women between the ages of 35 and 69 years should have a mammogram every two years. Bonuses are based on 5% increments from the minimum, up to a maximum of 75%."

To generate a list of patients who are eligible for a mammogram using Healthscreen™:

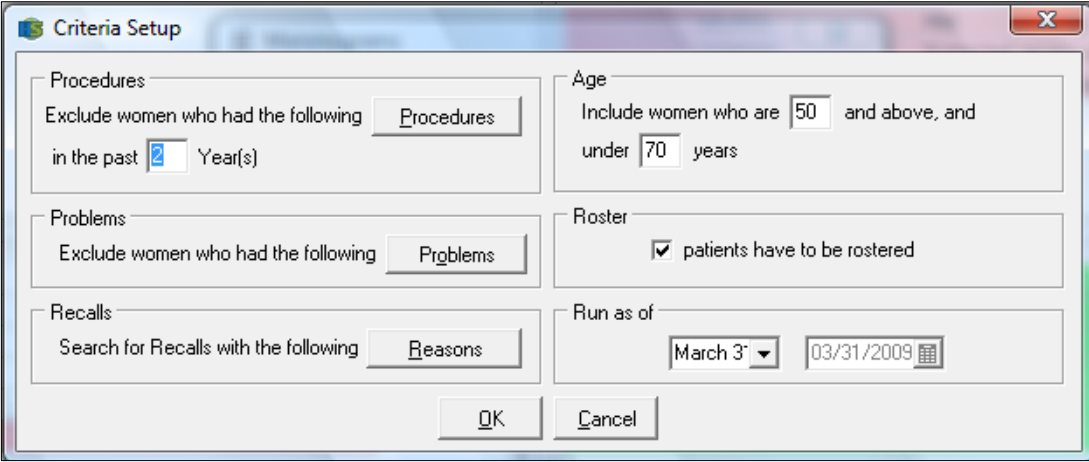
1. From the *Queries* Main Menu, select the *Preventative Care Management* submenu. From the submenu, select *Mammograms...*



2. A dialog box will appear similar to the following.



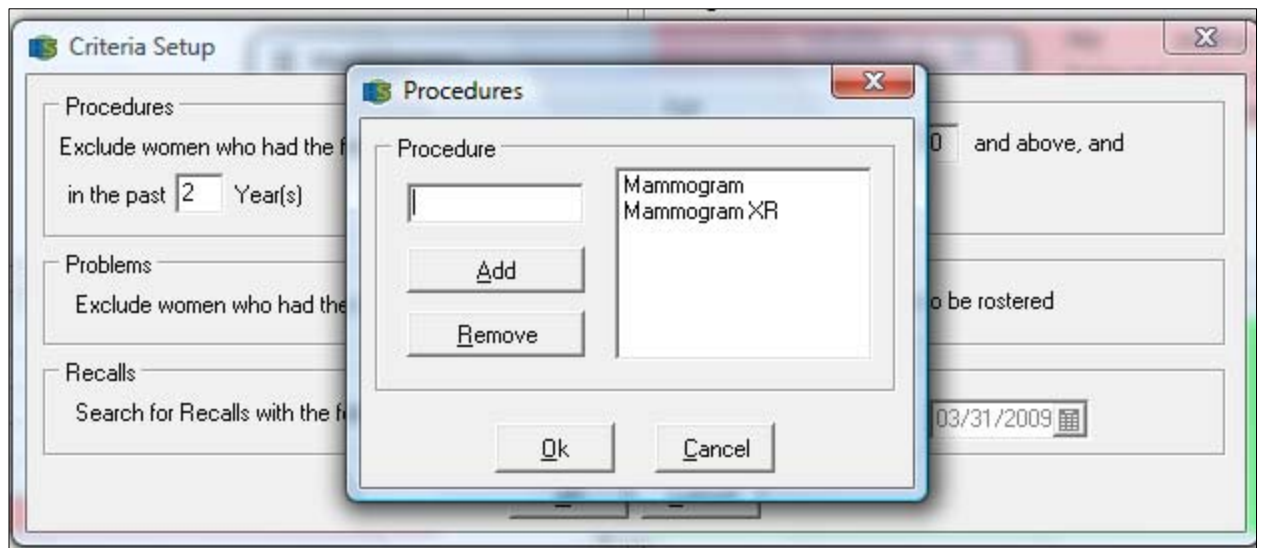
3. Select a provider from the *Principal/Family Physician* drop-down list for whom to generate the report. Alternately, the search may be done for *All Physicians* by checking the box.
4. Click the *Setup* button to enter criteria to be used to identify eligible patients.



The image shows a 'Criteria Setup' dialog box with a title bar containing a small icon and the text 'Criteria Setup' and a close button (X). The dialog is divided into several sections. On the left, there are three sections: 'Procedures' with a text field 'Exclude women who had the following' and a 'Procedures' button, a numeric field 'in the past 2 Year(s)', 'Problems' with a text field 'Exclude women who had the following' and a 'Problems' button, and 'Recalls' with a text field 'Search for Recalls with the following' and a 'Reasons' button. On the right, there are two sections: 'Age' with a text field 'Include women who are 50 and above, and under 70 years' and 'Roster' with a checked checkbox 'patients have to be rostered'. At the bottom right, there is a 'Run as of' section with a dropdown menu showing 'March 3' and a date field showing '03/31/2009' with a calendar icon. At the bottom center are 'OK' and 'Cancel' buttons.

Section	Field/Control	Value/Text
Procedures	Exclude women who had the following	Procedures
	in the past	2
	Year(s)	
Problems	Exclude women who had the following	Problems
Recalls	Search for Recalls with the following	Reasons
Age	Include women who are	50
	and above, and under	70
Roster	<input checked="" type="checkbox"/> patients have to be rostered	
Run as of	March 3	
	03/31/2009	

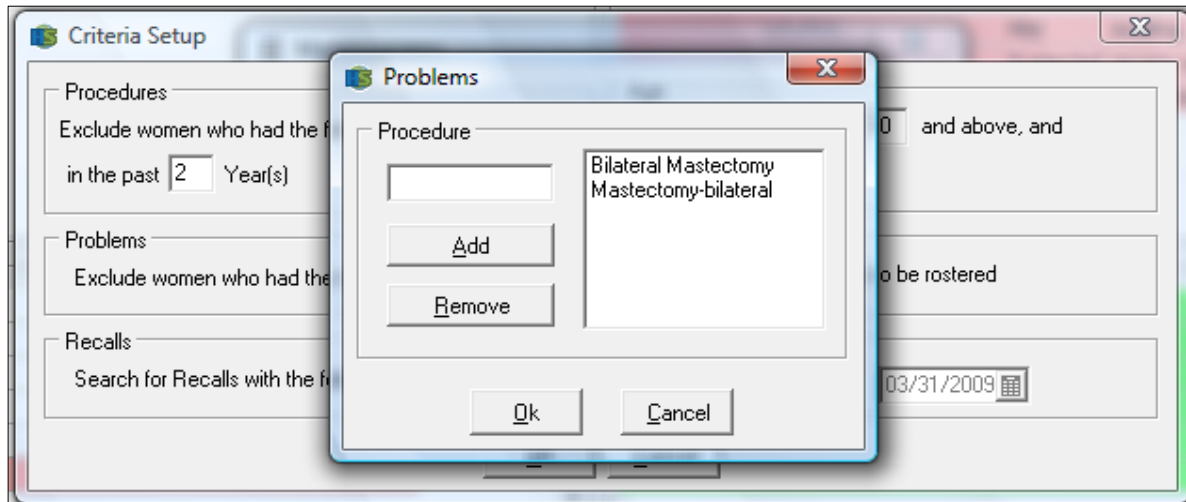
5. By default, women who have already had a mammogram in the last two years as per their procedure list will be excluded from the list of patients eligible for a mammogram.
- To change the default number of years in which a mammogram had to be done for exclusion of a patient from the eligibility list, enter it in the *Procedures* area of the dialog box.
 - To view the procedures that will exclude women from the eligibility list, click the Procedures button and a dialog box will appear similar to the following.



- By default, Healthscreen™ will exclude women who have “mammogram” or “mammogram XR” in the description field of any Procedures entry (under the *Lab, P*roced tab).
- To add another term that is used in your practice that makes a patient ineligible for a mammogram, type it in the text box then click the Add button. For example, you might use “mammo” or another abbreviation for a procedure that would make a patient ineligible. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of procedures, any of which would make it unnecessary to add the patient to the list of people requiring a mammogram.

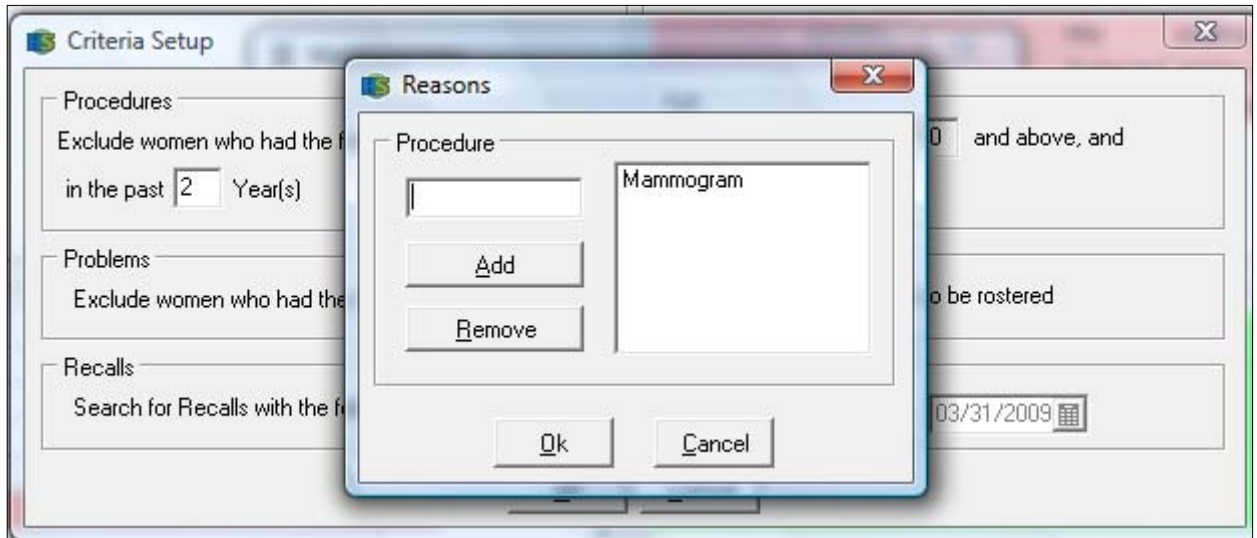
6. By default, women who have had specific problems will be excluded from the list of patients eligible for a mammogram.

- To view the problems that will exclude women from the eligibility list, click the *Problems* button and a dialog box will appear similar to the following.



- By default, Healthscreen™ will exclude women who have “bilateral mastectomy” or “mastectomy bilateral” in the description field of any Problems entry (under the *Problem* tab).
- To add another term that is used in your practice and makes a patient ineligible for a mammogram, type it in the text box then click the Add button. For example, you might use “mastectomy – left, right” or another abbreviation for a problem that would make a patient ineligible. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of problems, any of which would make it unnecessary to add the patient to the list of people requiring a mammogram.

7. By default, women who have already been recalled for a mammogram will be excluded from the list of patients eligible for a mammogram.
- To view the reasons for recall that will exclude women from the eligibility list, click the *Reasons* button and a dialog box will appear similar to the following.



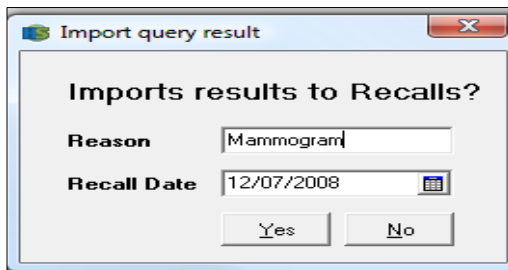
- By default, Healthscreen™ will exclude women who have “mammogram” in the Reason field of any Recall entry (under the *Alert*, *Recall* tab).
 - To add another term that is used in your practice and makes a patient ineligible for a mammogram, type it in the text box then click the Add button. For example, you might use “visit for mammogram” or another abbreviation for a recall reason that would exclude the patient from the list of people requiring mammograms. Remember that only the **exact** text you have entered will be searched.
 - To remove any terms that are in the list, *select* the entry, then click the Remove button.
 - Click the OK button when you are finished editing the list of recall reasons, any of which would make it unnecessary to add the patient to the list of people requiring a mammogram.
8. To change the age range of women who are to be considered eligible for a mammogram, enter alternate values in the *Age* area of the dialog box. By default, only patients between the ages of 50 and 70 years will be included in the search for eligible patients.

9. To include only patients in the roster at the practice, ensure the checkbox in the *Roster* area of the Criteria Setup dialog box is selected.
10. The *Run as of* area of the Criteria Setup dialog box can be used to create a list of eligible patients as of today or can include patients that will become eligible on any future date.

The screenshot shows the 'Criteria Setup' dialog box. It has a title bar with a close button. The dialog is divided into several sections: 'Procedures' (Exclude women who had the following Procedures in the past 2 Year(s)), 'Problems' (Exclude women who had the following Problems), 'Recalls' (Search for Recalls with the following Reasons), 'Age' (Include women who are 50 and above, and under 70 years), 'Roster' (patients have to be rostered - checked), and 'Run as of' (March 31, 03/31/2009). At the bottom are 'OK' and 'Cancel' buttons.

11. When you have finished entering criteria, click the OK button in this dialog box to return to the Mammogram dialog box.
12. Make a selection from *Print Options*. Results may be output as a(n):
 - *List* showing the patient's name, sex, OHIP number, birth date and age
 - *Labels* that can be used to mail a standard letter to patients
 - *Excel file* which could be used as a data source for a mail merge with a word processor to personalize letters
 - *Summary* list of patients as well as a total count of those who are classified as eligible, ineligible, completed and percentage completed for mammograms.
 - *Recall* will automatically create a recall record entry for all of the identified patients.

13. Click the Run button to view the report, in the format you have selected, of patients eligible for a mammogram.
14. Once the preview of the report is closed, the following dialog box will appear. To add a recall entry for all of the patients on the list, click the Yes button. Click the No button if automatic recall notices are not to be added for all of the patients in the report.



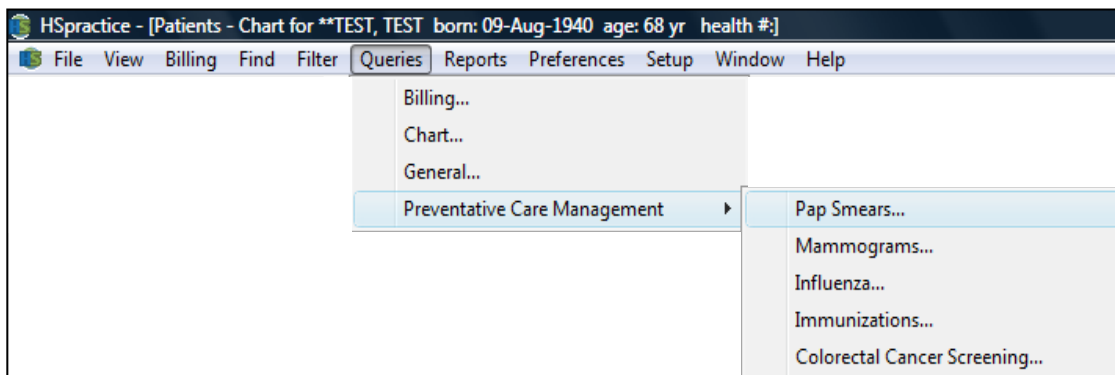
PAP SMEARS

Ministry of Health and Long-Term Care's Preventive Care Service Recommendation:

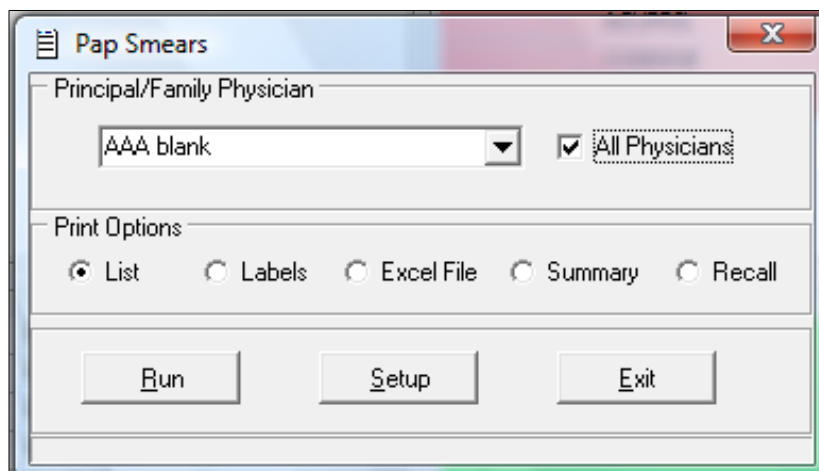
"As of January 2008, a minimum of 60% of eligible enrolled women between the ages of 35 and 69 years should have a pap smear every two years. Bonuses are based on 5% increments from the minimum, up to a maximum of 80%."

Generate a list of Healthscreen™ patients who are eligible for a Pap Smear:

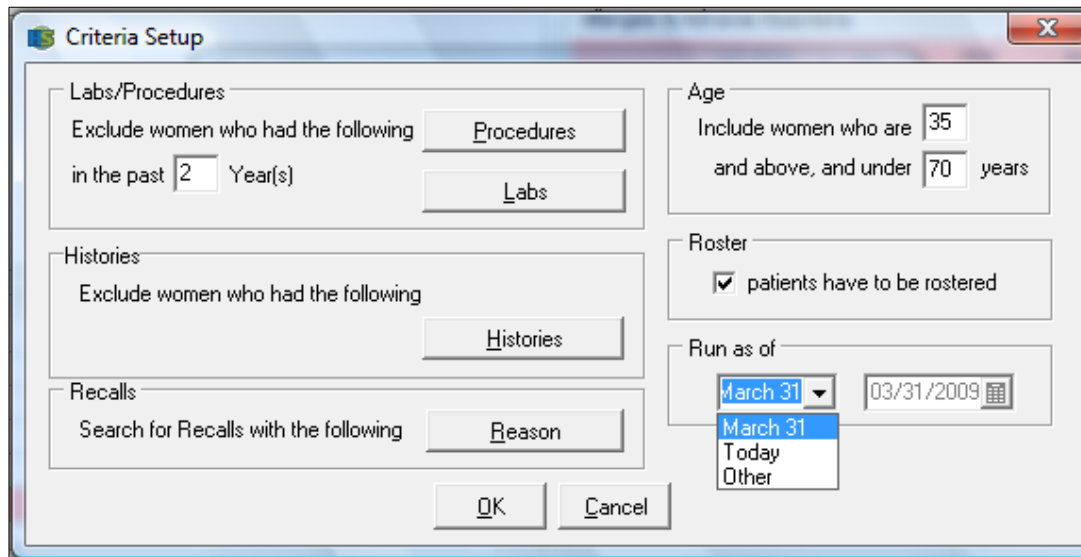
1. From the *Queries* Main Menu, select the *Preventative Care Management* submenu. From the submenu, select *Pap Smears...*



2. A dialog box will appear similar to the following.



3. Select a provider from the Principal/Family Physician drop-down list for whom to generate the report. Alternately, the search may be done for *All Physicians* by checking the box.
4. Click the Setup button to enter criteria to be used to identify eligible patients.

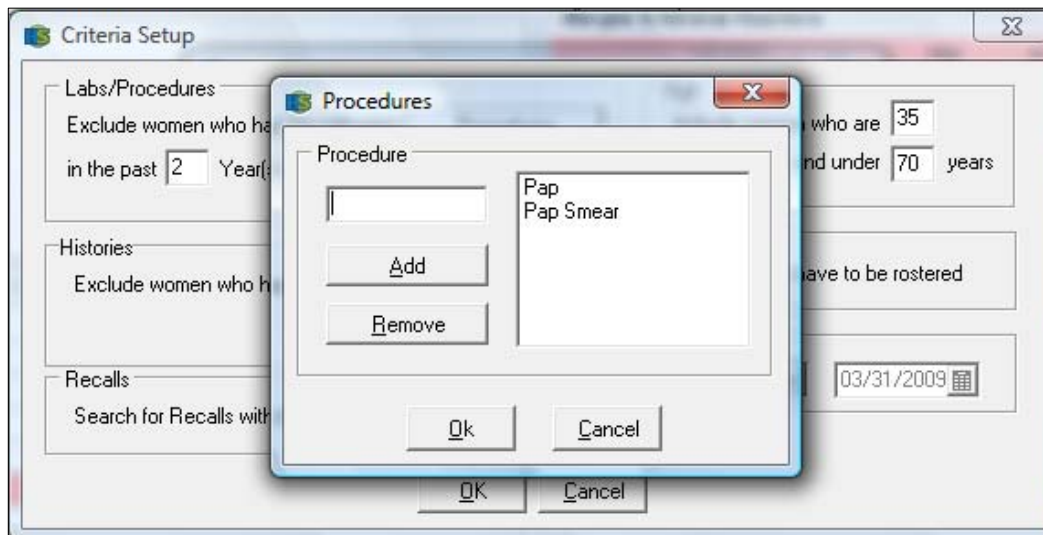


The image shows a 'Criteria Setup' dialog box with several sections for configuring search criteria:

- Labs/Procedures:** Includes a section to 'Exclude women who had the following' in the past 2 Year(s). It has buttons for 'Procedures' and 'Labs'.
- Age:** Includes a section to 'Include women who are' 35 and above, and under 70 years.
- Histories:** Includes a section to 'Exclude women who had the following' with a button for 'Histories'.
- Recalls:** Includes a section to 'Search for Recalls with the following' with a button for 'Reason'.
- Roster:** Includes a checkbox for 'patients have to be rostered' which is checked.
- Run as of:** Includes a dropdown menu currently showing 'March 31' with a list of options: 'March 31', 'Today', and 'Other'. Next to it is a date field showing '03/31/2009'.

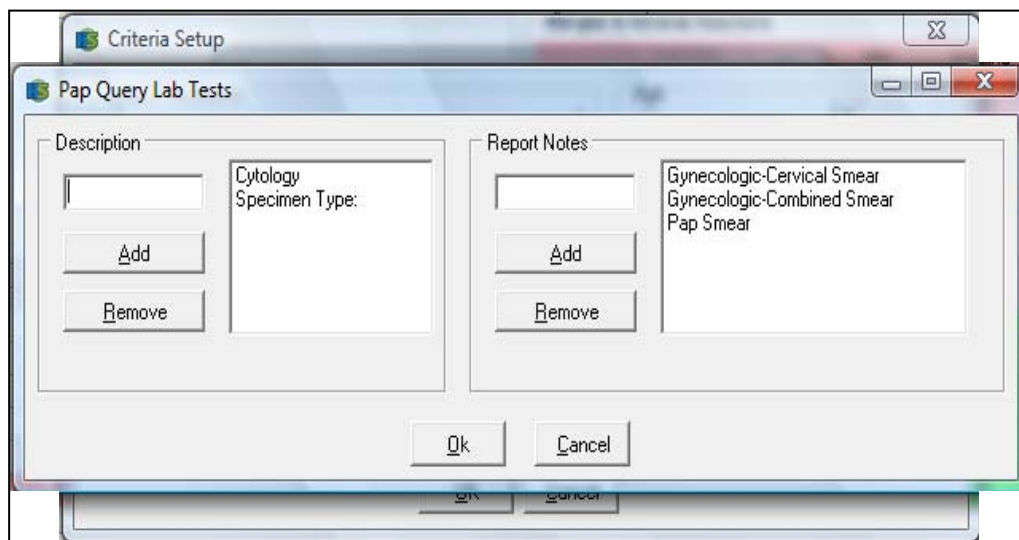
At the bottom of the dialog are 'OK' and 'Cancel' buttons.

5. By default, women who have already had a pap smear in the last two years as it appears in the Procedure list will be excluded from the list of patients eligible for a pap smear.
- To change the default number of years in which a pap smear had to be done for exclusion of a patient from the eligibility list, enter it in the *Lab/Procedures* area of the dialog box.
 - To view the procedures that will exclude women from the eligibility list, click the Procedures button and a dialog box will appear similar to the following.



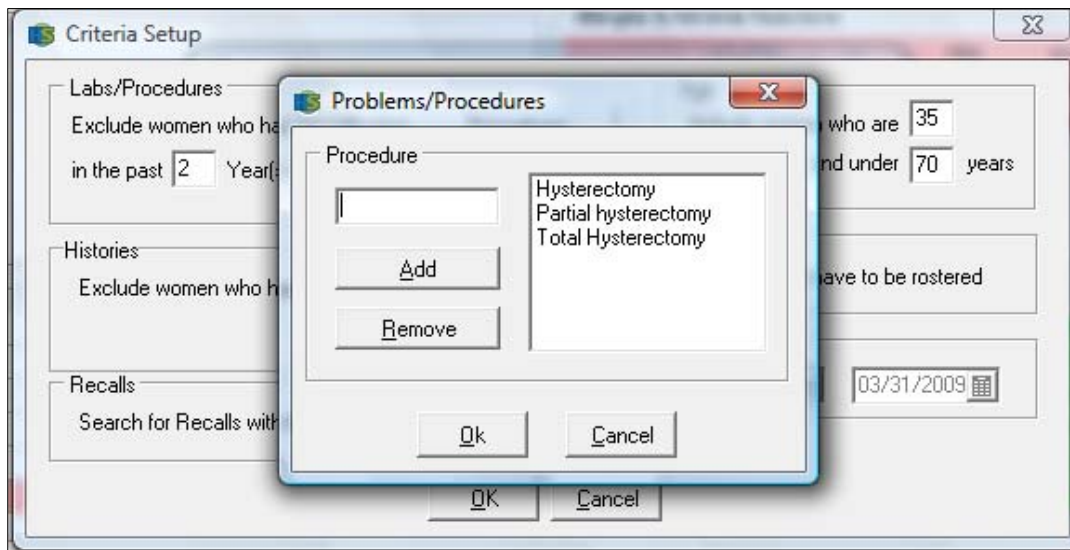
- By default, Healthscreen™ will exclude women who have “pap” or “pap smear” in the description field of any Procedures entry (under the *Lab, Proced* tab).
- To add another term that is used in your practice and makes a patient ineligible for a pap smear, type it in the text box then click the Add button. For example, you might use “Papanicolaou test” or another abbreviation for a procedure that would make a patient ineligible. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of procedures, any of which would make it unnecessary to add the patient to the list of people requiring a pap smear.

6. By default, women who have already had a pap smear in the last two years as it appears in the Lab list will be excluded from the list of patients eligible for a pap smear.
- To change the default number of years in which a pap smear had to be done for exclusion of a patient from the eligibility list, enter it in the *Procedures* area of the dialog box.
 - To view the labs that will exclude women from the eligibility list, click the Labs button and a dialog box will appear similar to the following.



- By default, Healthscreen™ will exclude women who have “cytology” or “specimen type” in the description field of the lab test and women who have “Gynecologic-Cervical Smear”, “Gynecologic-Combined Smear” or “Pap Smear” in the notes of any Lab entry (under the *Lab*, *Proced* tab in Healthscreen™).
- To add another term that is used in your practice and would indicate that a patient has already had a pap smear and thus makes the patient ineligible for another one, type it in the text box then click the Add button. For example, you might use “Pap test” or another abbreviation for the lab test or in the result notes that would make a patient ineligible. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of labs and report notes text, any of which would make it unnecessary to add the patient to the list of people requiring a pap smear.

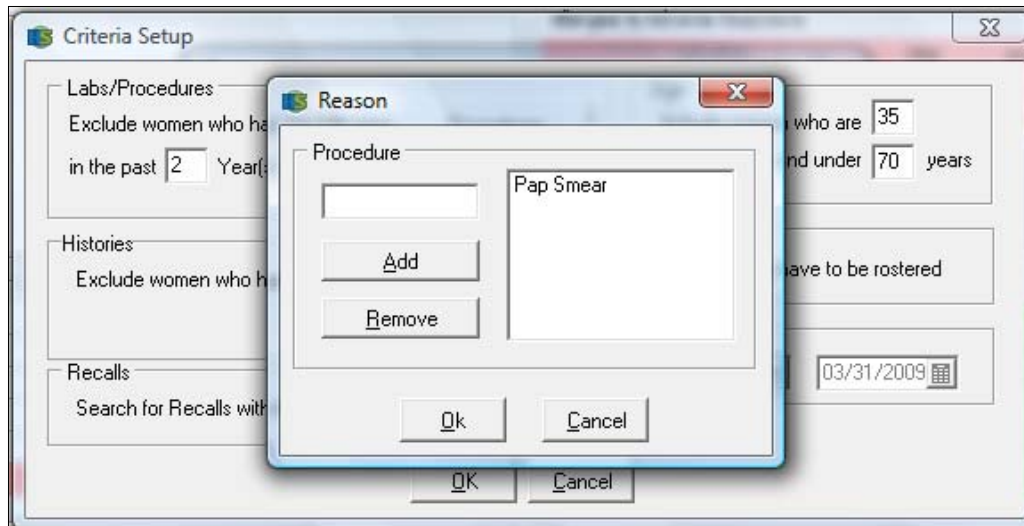
7. By default, women who have had specific histories will be excluded from the list of patients eligible for a pap smear.
- To view the medical histories that will exclude women from the eligibility list, click the *Problems* button and a dialog box will appear similar to the following.



- By default, HealthScreen will exclude women who have “hysterectomy” or “partial hysterectomy” or “total hysterectomy” in the description field of any Problems entry (under the *Problem* tab or *Lab,Preced* tab of Healthscreen™).
- To add another term that is used in your practice that and makes a patient ineligible for a pap smear, type it in the text box then click the Add button. For example, you might use “uterine surgery” or another abbreviation for a problem that would make a patient ineligible. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of problems, any of which would make it unnecessary to add the patient to the list of people requiring a pap smear.

8. By default, women who have already been recalled for a pap smear will be excluded from the list of patients eligible for a pap smear.

- To view the reasons for recall that will exclude women from the eligibility list, click the *Reasons* button and a dialog box will appear similar to the following.



- By default, Healthscreen™ will exclude women who have “pap smear” in the Reason field of any Recall entry (under the *Alert, Recall* tab).
 - To add another term that is used in your practice and makes a patient ineligible for a pap smear, type it in the text box then click the Add button. For example, you might use “repeat pap test” or another abbreviation for a recall reason that would exclude the patient from the list of people requiring pap smears. Remember that only the **exact** text you have entered will be searched.
 - To remove any terms that are in the list, *select* the entry, then click the Remove button.
 - Click the OK button when you are finished editing the list of recall reasons, any of which would make it unnecessary to add the patient to the list of people requiring a pap smear.
9. To change the age range of women who are to be considered eligible for a pap smear, enter alternate values in the Age area of the dialog box. By default, only patients between the ages of 35 and 70 years will be included in the search for eligible patients.
10. To include only patients in the roster at the practice, ensure the checkbox in the Roster area of *the Criteria Setup* dialog box is selected.

11. The *Run as of* area of the *Criteria Setup* dialog box can be used to create a list of eligible patients as of today or can include patients that will become eligible on any future date.

The screenshot shows the 'Criteria Setup' dialog box. It contains several sections for configuring search criteria:

- Labs/Procedures:** 'Exclude women who had the following' with a 'Procedures' button and a text field 'in the past 2 Year(s)' with a 'Labs' button.
- Histories:** 'Exclude women who had the following' with a 'Histories' button.
- Recalls:** 'Search for Recalls with the following' with a 'Reason' button.
- Age:** 'Include women who are 35 and above, and under 70 years'.
- Roster:** A checkbox labeled 'patients have to be rostered' which is checked.
- Run as of:** A dropdown menu showing 'March 31' (highlighted) with options 'March 31', 'Today', and 'Other'. Next to it is a date field showing '03/31/2009'.

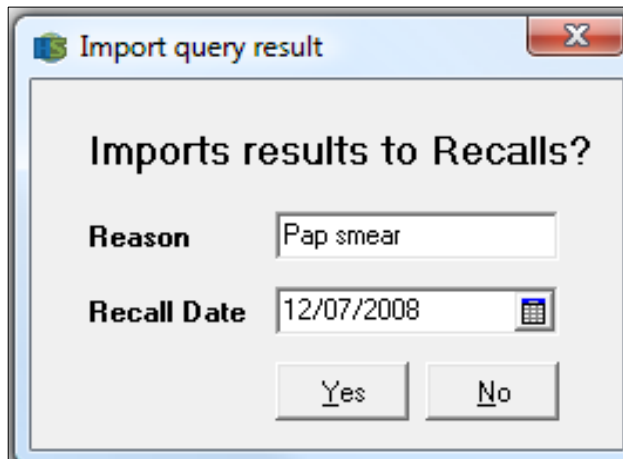
At the bottom are 'OK' and 'Cancel' buttons.

12. When you have finished entering criteria, click the *OK* button in this dialog box to return to the *Pap Smears* dialog box.

13. Make a selection from *Print Options*. Results may be output as a(n):

- *List* showing the patient's name, sex, OHIP number, birth date and age
- *Labels* that can be used to mail a standard letter to patients
- *Excel file* which could be used as a data source for a mail merge with a word processor to personalize letters
- *Summary* list of patients as well as a total count of those who are classified as eligible, ineligible, completed and percentage completed for pap tests
- *Recall* will automatically create a recall record entry for all of the identified patients

14. Click the *Run* button to view the report, in the format you have selected, of patients eligible for a pap smear.
15. Once the preview of the report is closed, the following dialog box will appear. To add a recall entry for all of the patients on the list, click the *Yes* button. Click the *No* button if automatic recall notices are not to be added for all of the patients in the report.



IMMUNIZATIONS

Ministry of Health and Long-Term Care's Preventive Care Service Recommendation:

"As of January 2008, a minimum of 85% of eligible enrolled children between the ages of 18 to 24 months should have a complete set of immunizations. Bonuses are based on 5% increments from the minimum, up to a maximum of 95%."

Publicly Funded Routine Immunization Schedule for Children Beginning Immunization in Early Infancy

Age at vaccination	Diphtheria	Pertussis	Tetanus	Polio	HIB	Pneumo-coccal conjugate	Measles mumps rubella (MMR)*	Men-C conjugate	Chicken pox (Varicella)	Hepatitis B
2 months	•	•	•	•	•	•				
4 months	•	•	•	•	•	•				
6 months	•	•	•	•	•	•				
12 months							•	•		
15 months†						•			•	
18 months	•	•	•	•	•		•			
4-6 years	•	•	•	•					•**	
12 years (grade 7)								•‡		•
14-16 years	•	•	•							

* MMR = measles, mumps and rubella vaccine must be given after the first birthday.

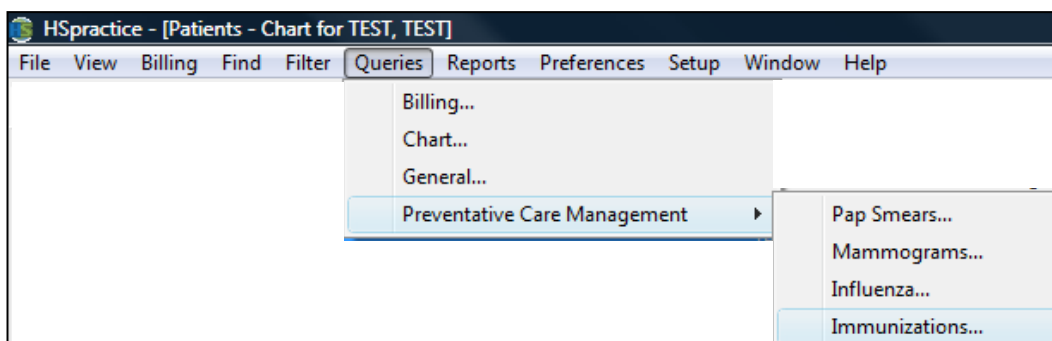
** If your child has not had chicken pox or the vaccine he/she can receive the chicken pox vaccine at 5 years of age.

† These vaccines can be given as early as 12 months of age.

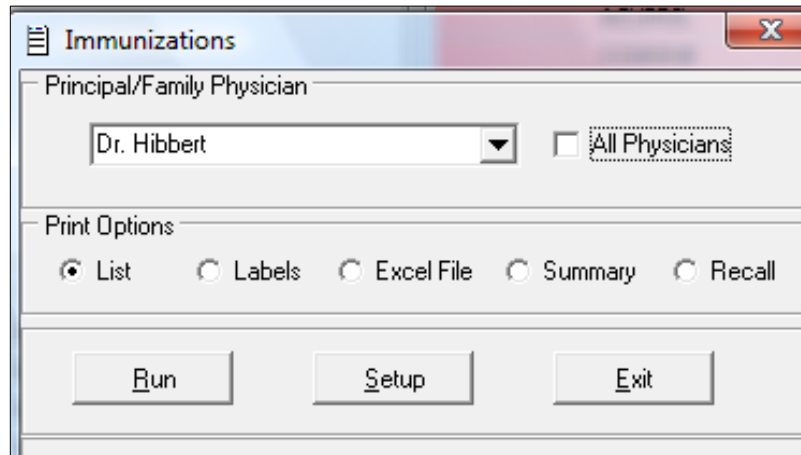
‡ If your child has not had the meningococcal c-conjugate vaccine (at 1 year of age) then he/she can receive the vaccine at 12 years of age or in grade 7.

Generate a list of patients who are eligible for immunizations using Healthscreen™

1. From the *Queries* Main Menu, select the *Preventative Care Management* submenu. From the submenu, select *Immunizations...*

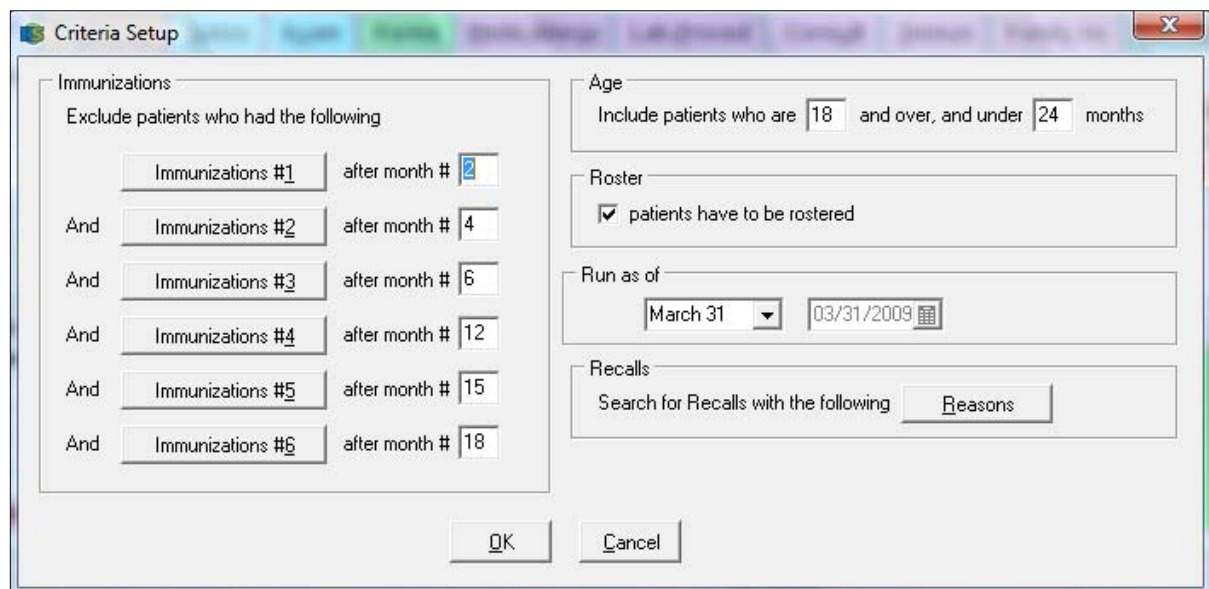


2. A dialog box will appear similar to the following.



The 'Immunizations' dialog box features a title bar with a list icon and a close button. It is divided into three sections. The top section, 'Principal/Family Physician', contains a dropdown menu with 'Dr. Hibbert' selected and an unchecked checkbox labeled 'All Physicians'. The middle section, 'Print Options', includes five radio buttons: 'List' (selected), 'Labels', 'Excel File', 'Summary', and 'Recall'. The bottom section contains three buttons: 'Run', 'Setup', and 'Exit'.

3. Select a provider from the *Principal/Family Physician* drop-down list for whom to generate the report. Alternately, the search may be done for *All Physicians* by checking the box.
4. Click the *Setup* button to enter criteria to be used to identify eligible patients.

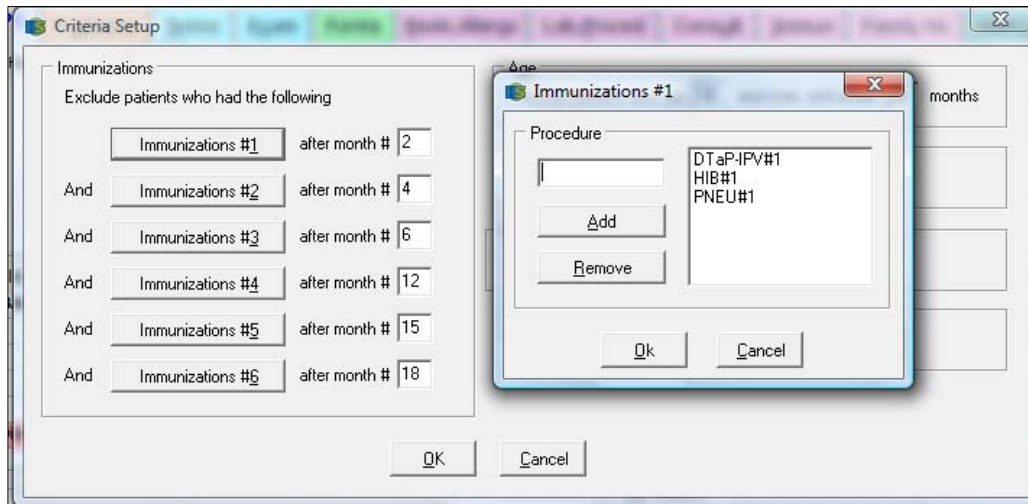


The 'Criteria Setup' dialog box has a title bar with a globe icon and a close button. It is divided into several sections. The 'Immunizations' section on the left is titled 'Exclude patients who had the following' and contains a table with six rows, each with an 'Immunizations #' field and an 'after month #' field. The 'Age' section on the right is titled 'Include patients who are' and contains two numeric fields for '18' and '24' months. The 'Roster' section contains a checked checkbox labeled 'patients have to be rostered'. The 'Run as of' section contains a dropdown menu with 'March 31' and a date field with '03/31/2009'. The 'Recalls' section contains a text field labeled 'Search for Recalls with the following' and a button labeled 'Reasons'. At the bottom are 'OK' and 'Cancel' buttons.

Immunizations #	after month #
Immunizations #1	2
Immunizations #2	4
Immunizations #3	6
Immunizations #4	12
Immunizations #5	15
Immunizations #6	18

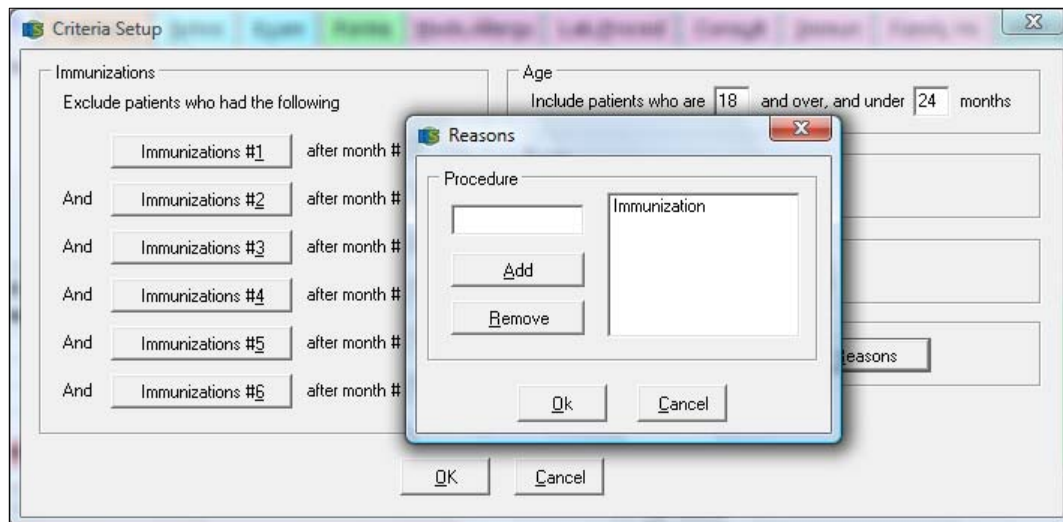
5. Patients will be excluded only if they have had all of the immunizations listed in the six dialog boxes. Each Dialog box looks similar to the others and also functions the same way.

- Click the Immunizations #1 button to open the dialog box that allows you to view the default entry.



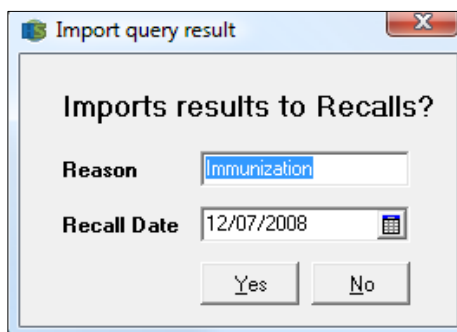
- To add another term that is used in your practice and makes a patient ineligible for an immunization, type it in the text box then click the Add button. For example, you might use “DPT-HIB” to describes the diphtheria, polio, tetanus and haemophilus influenza type b combination vaccine and “pneumococcal” to describe the pneumococcal conjugate. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of immunizations, all of which would have to be complete to exclude that patient from the list of those requiring immunizations. You will return to the *Criteria Setup* dialog box.
- Repeat the four preceding steps for each of the six dialog boxes to enter the text used at your practice to describe immunizations at various ages. Note that you may change the ages at which each immunization ought to be complete in order for the patient to be excluded from the results.

6. To change the age range of children who are to be considered eligible for immunizations, enter alternate values in the *Age* area of the *Criteria Setup* dialog box. By default, only patients between the ages of 18 and 24 months will be included in the search for eligible patients.
7. To include only patients in the roster at the practice, ensure the checkbox in the *Roster* area of the *Criteria Setup* dialog box is selected.
8. By default, children who have already been recalled for an immunization will be excluded from the list of patients eligible for immunizations.
 - To view the reasons for recall that will exclude patients from the eligibility list, click the *Reasons* button and a dialog box will appear similar to the following.



- By default, Healthscreen™ will exclude children who have “immunization” in the Reason field of any Recall entry (under the *Alert*, *Recall* tab).
- To add another term that is used in your practice and makes a patient ineligible for the immunizations report, type it in the text box then click the Add button. For example, you might use “DPT #3” or another abbreviation for a recall reason that would exclude the patient from the list of people requiring immunizations. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, select the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of recall reasons, any of which would make it unnecessary to add the patient to the list of people requiring immunizations.

9. When you have finished entering criteria, click the *OK* button in this dialog box to return to the *Immunizations* dialog box.
10. Make a selection from Print Options. Results may be output as a(n):
 - *List* showing the patient's name, sex, OHIP number, birth date and age
 - *Labels* that can be used to mail a standard letter to patients
 - *Excel file* which could be used as a data source for a mail merge with a word processor to personalize letters
 - *Summary* list of patients as well as a total count of those who are classified as eligible, ineligible, completed and percentage completed for immunizations
 - *Recall* will automatically create a recall record entry for all of the identified patients
11. Click the *Run* button to view the report, in the format you have selected, of patients eligible for immunizations.
12. Once the preview of the report is closed, the following dialog box will appear. To add a recall entry for all of the patients on the list, click the *Yes* button. Click the *No* button if automatic recall notices are not to be added for all of the patients in the report.



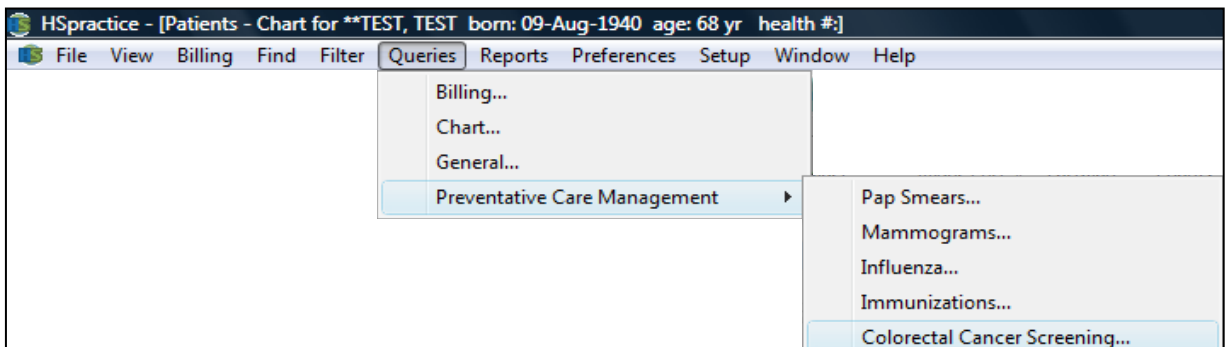
COLORECTAL CANCER SCREENING

Ministry of Health and Long-Term Care's Preventive Care Service Recommendation:

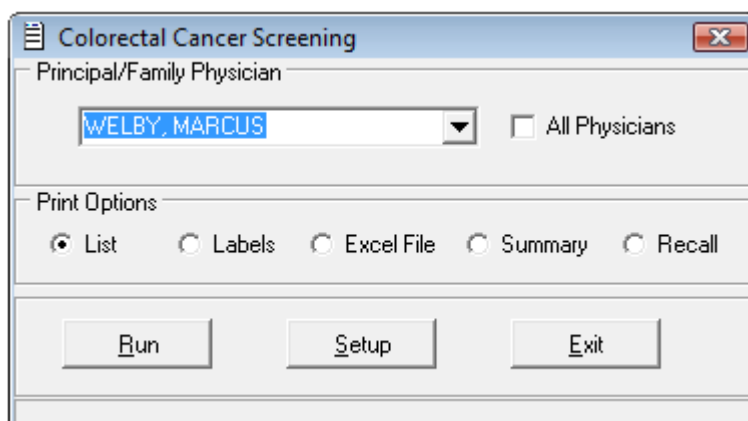
"As of January 2008, a minimum of 15% of eligible enrolled adults between the ages of 50 and 74 years should have a fecal occult blood test every thirty months. Bonuses are based on increments from the minimum, up to a maximum of 50%."

Generate a list of patients who are eligible for colorectal cancer screening using Healthscreen™

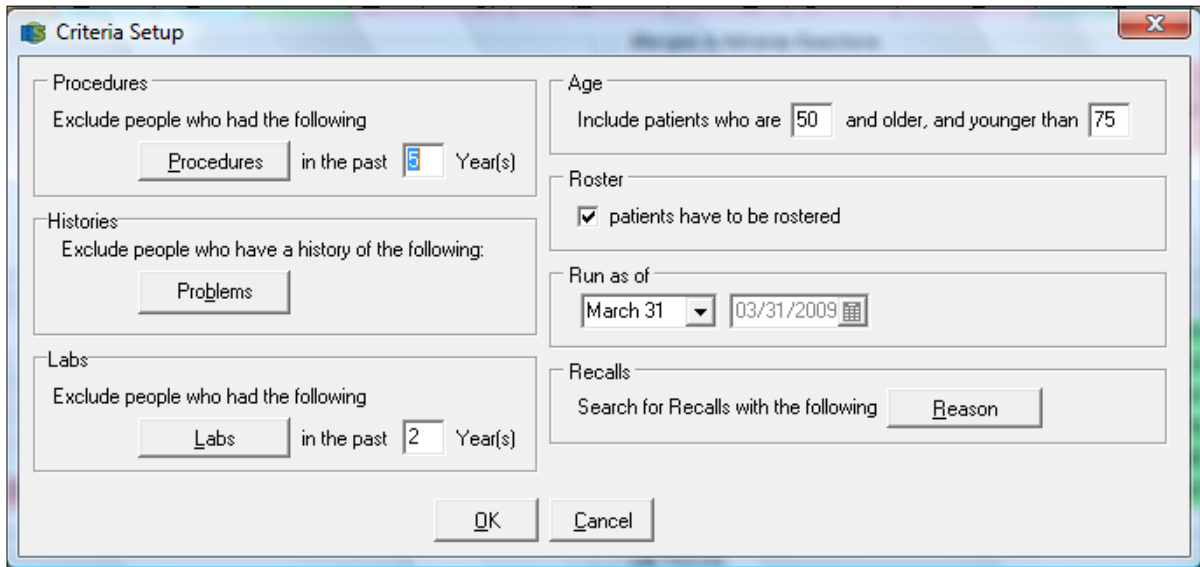
1. From the *Queries* Main Menu, select the *Preventative Care Management* submenu. From the submenu, select *Colorectal Cancer Screening...*



2. A dialog box will appear similar to the following.



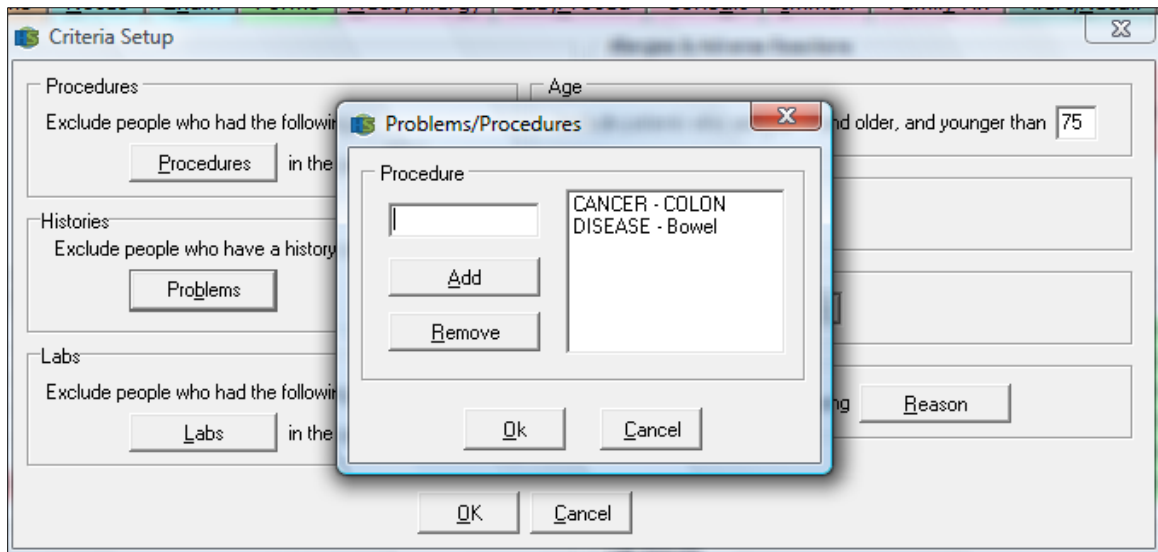
3. Select a provider from the *Principal/Family Physician* drop-down list for whom to generate the report. Alternately, the search may be done for *All Physicians* by checking the box.
4. Click the *Setup* button to enter criteria to be used to identify eligible patients.



The image shows a 'Criteria Setup' dialog box with several sections for configuring search criteria. The 'Procedures' section includes a checkbox to 'Exclude people who had the following' and a text box with 'Procedures' and a numeric field set to '5' for 'Year(s)'. The 'Histories' section has a checkbox to 'Exclude people who have a history of the following:' and a text box with 'Problems'. The 'Labs' section includes a checkbox to 'Exclude people who had the following' and a text box with 'Labs' and a numeric field set to '2' for 'Year(s)'. The 'Age' section has a text box 'Include patients who are' with '50' and 'and older, and younger than' with '75'. The 'Roster' section has a checked checkbox 'patients have to be rostered'. The 'Run as of' section has a dropdown menu showing 'March 31' and a date field '03/31/2009'. The 'Recalls' section has a text box 'Search for Recalls with the following' and a text box with 'Reason'. At the bottom are 'OK' and 'Cancel' buttons.

5. By default, people who have already had a colorectal screening test in the last five years as per their procedure list will be excluded from the list of patients eligible for a fecal occult blood test.
 - To change the default number of years in which a procedure had to be done for exclusion of a patient from the eligibility list, enter it in the *Procedures* area of the dialog box.

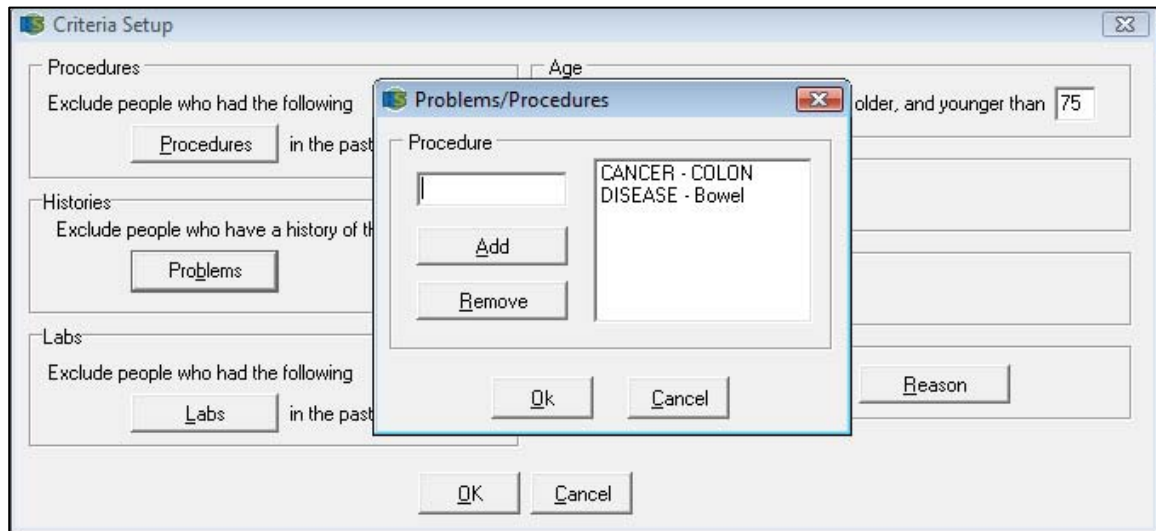
- To view the procedures that will exclude people from the eligibility list, click the Procedures button and a dialog box will appear similar to the following.



- By default, Healthscreen™ will exclude people who have “cancer - colon” or “disease - bowel” in the description field of any Procedures entry (under the Lab, Proced tab).
- To add another term that is used in your practice that makes a patient ineligible for a mammogram, type it in the text box then click the Add button. For example, you might use “colonoscopy” or another abbreviation for a procedure that would make a patient ineligible. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of procedures, any of which would make it unnecessary to add the patient to the list of people requiring colorectal cancer screening.

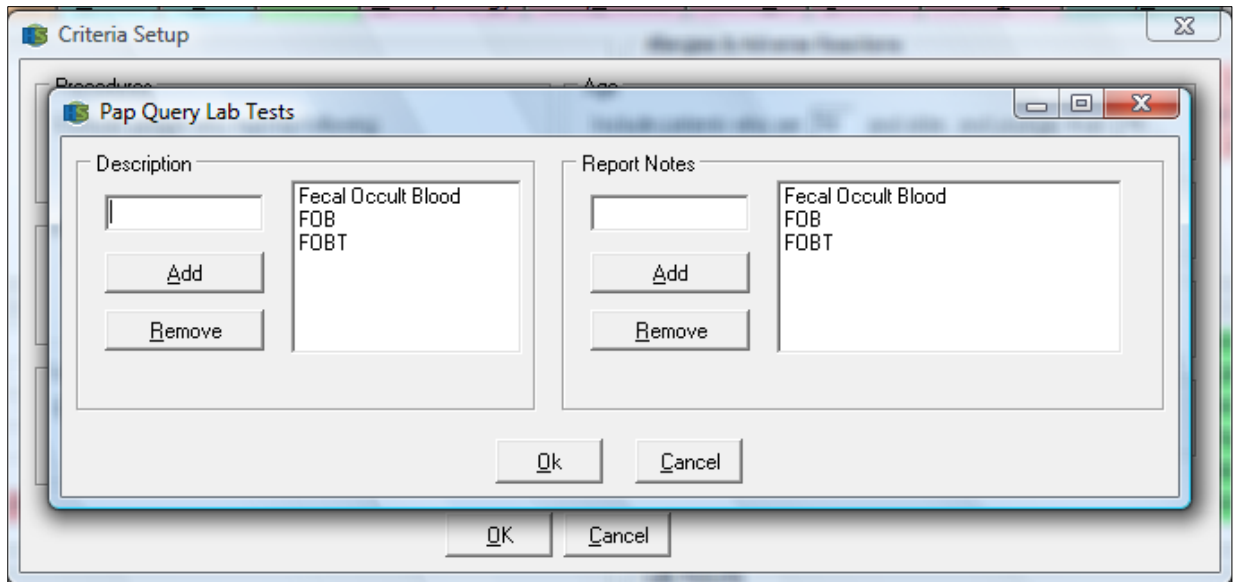
6. By default, people who have had specific problems will be excluded from the list of patients eligible for colorectal cancer screening.

- To view the problems that will exclude people from the eligibility list, click the *Problems* button and a dialog box will appear similar to the following.



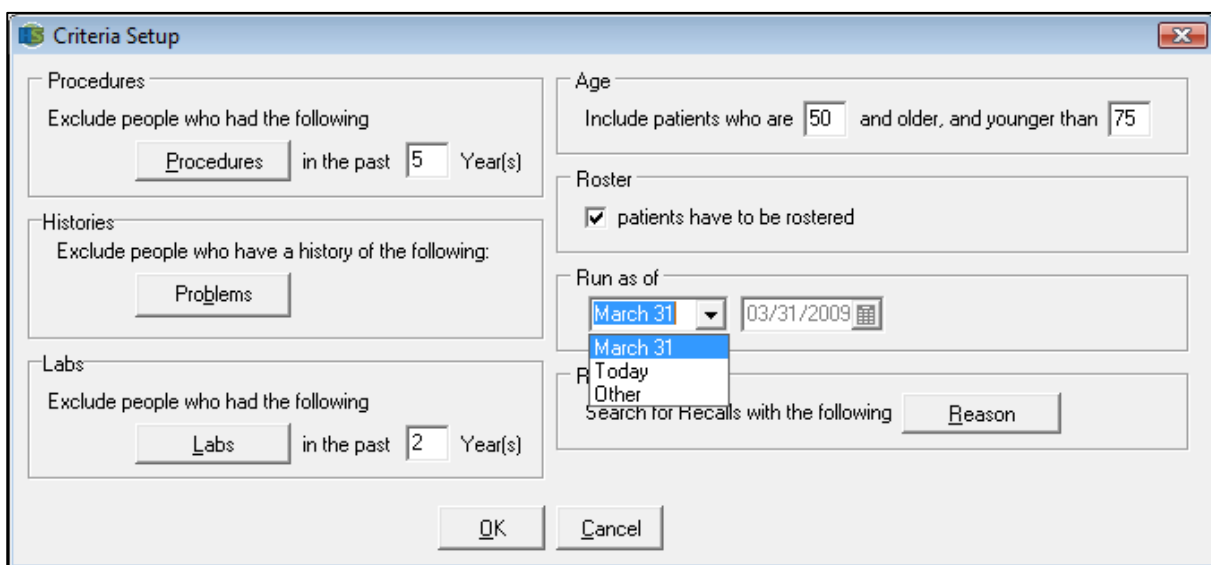
- By default, Healthscreen™ will exclude people who have “cancer - colon” or “disease - bowel” in the description field of any Problems entry (under the *Problem* tab).
- To add another term that is used in your practice and makes a patient ineligible for colorectal cancer screening, type it in the text box then click the Add button. For example, you might use “colon ca” or another abbreviation for a problem that would make a patient ineligible. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of problems, any of which would make it unnecessary to add the patient to the list of people requiring colorectal cancer screening.

7. By default, people who have had specific lab tests will be excluded from the list of patients eligible for colorectal cancer screening.
- To view the lab test or associated report notes that will exclude people from the eligibility list, click the *Labs* button and a dialog box will appear similar to the following.



- By default, Healthscreen™ will exclude people who have “Fecal Occult Blood” or “FOB” or “FOBT” in the *description* field of any Lab entry (under the *Lab,Proced* tab).
- By default, Healthscreen™ will exclude people who have “Fecal Occult Blood” or “FOB” or “FOBT” in the *report notes* field of any Lab entry (under the *Lab,Proced* tab).
- To add another term that is used in your practice and makes a patient ineligible for colorectal cancer screening, type it in the text box then click the Add button. For example, you might use “Fecal Occult Blood test” or another abbreviation for a lab test that would make a patient ineligible. Remember that only the **exact** text you have entered will be searched.
- To remove any terms that are in the list, *select* the entry, then click the Remove button.
- Click the OK button when you are finished editing the list of problems, any of which would make it unnecessary to add the patient to the list of people requiring colorectal cancer screening.

8. To change the age range of people who are to be considered eligible for colorectal cancer screening, enter alternate values in the *Age* area of the dialog box. By default, only patients who are at least 50 years old and less than 75 years will be included in the search for eligible patients.
9. To include only patients in the roster at the practice, ensure the checkbox in the *Roster* area of the Criteria Setup dialog box is selected.
10. The *Run as of* area of the Criteria Setup dialog box can be used to create a list of eligible patients as of today or can include patients that will become eligible on any other future date.



The image shows a screenshot of the "Criteria Setup" dialog box. The dialog box has a title bar with a close button. It contains several sections: "Procedures" with a button labeled "Procedures" and a text field "in the past 5 Year(s)"; "Histories" with a button labeled "Problems" and a text field "Exclude people who have a history of the following:"; "Labs" with a button labeled "Labs" and a text field "in the past 2 Year(s)"; "Age" with a text field "Include patients who are 50 and older, and younger than 75"; "Roster" with a checked checkbox "patients have to be rostered"; "Run as of" with a dropdown menu showing "March 31" and a date field "03/31/2009"; and "Search for Recalls with the following" with a button labeled "Reason". At the bottom are "OK" and "Cancel" buttons.

Criteria Setup

Procedures
Exclude people who had the following
Procedures in the past 5 Year(s)

Histories
Exclude people who have a history of the following:
Problems

Labs
Exclude people who had the following
Labs in the past 2 Year(s)

Age
Include patients who are 50 and older, and younger than 75

Roster
☒ patients have to be rostered

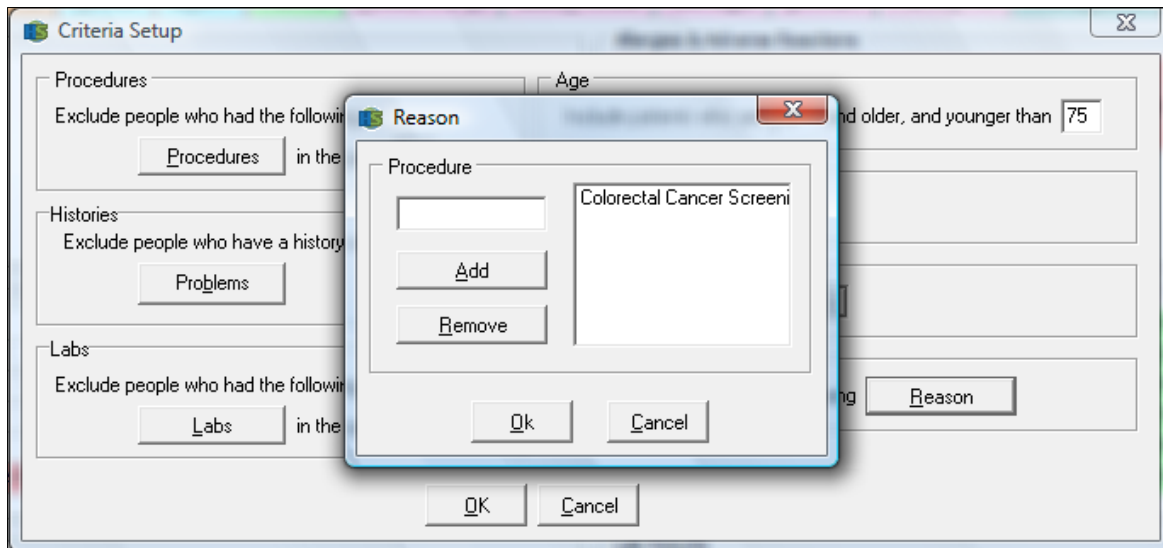
Run as of
March 31 03/31/2009

Search for Recalls with the following Reason

OK Cancel

By default, people who have already been recalled for colorectal screening will be excluded from the list of patients eligible for a fecal occult blood test.

- To view the reasons for recall that will exclude people from the eligibility list, click the *Reasons* button and a dialog box will appear similar to the following.



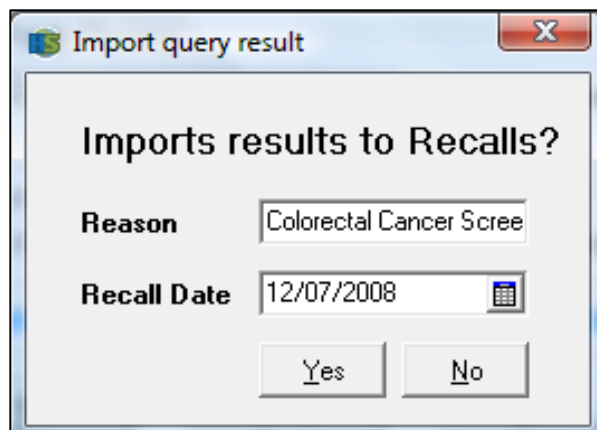
- By default, Healthscreen™ will exclude people who have “colorectal cancer screening” in the Reason field of any Recall entry (under the *Alert*, *Recall* tab).
 - To add another term that is used in your practice and makes a patient ineligible for colorectal cancer screening, type it in the text box then click the Add button. For example, you might use “due for fobt” or another abbreviation for a recall reason that would exclude the patient from the list of people requiring colorectal cancer screening. Remember that only the **exact** text you have entered will be searched.
 - To remove any terms that are in the list, *select* the entry, then click the Remove button.
 - Click the OK button when you are finished editing the list of recall reasons, any of which would make it unnecessary to add the patient to the list of people requiring colorectal cancer screening.
11. When you have finished entering criteria, click OK button in this dialog box to return to the Criteria Setup dialog box.

12. Make a selection from *Print Options*. Results may be output as a(n):

- *List* showing the patient's name, sex, OHIP number, birth date and age
- *Labels* that can be used to mail a standard letter to patients
- *Excel file* which could be used as a data source for a mail merge with a word processor to personalize letters
- *Summary* list of patients as well as a total count of those who are classified as eligible, ineligible, completed and percentage completed for fecal occult blood testing.
- *Recall* will automatically create a recall record entry for all of the identified patients.

13. Click the Run button to view the report, in the format you have selected, of patients eligible for colorectal cancer screening.

14. Once the preview of the report is closed, the following dialog box will appear. To add a recall entry for all of the patients on the list, click the *Yes* button. Click the *No* button if automatic recall notices are not to be added for all of the patients in the report.



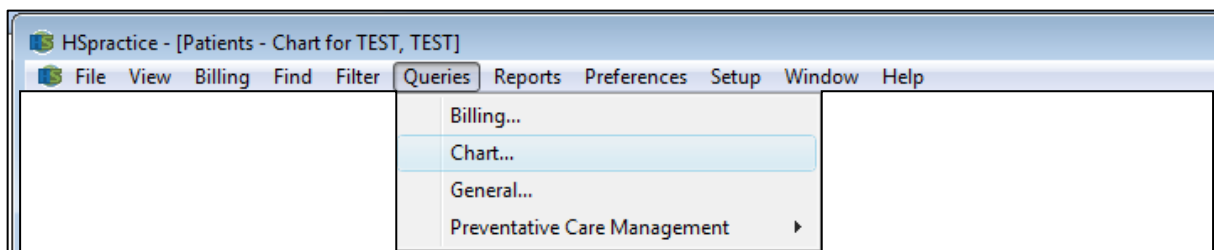
NEPHROPATHY SCREENING FOR PATIENTS WITH DIABETES MELLITUS

Canadian Diabetes Association Recommendation:

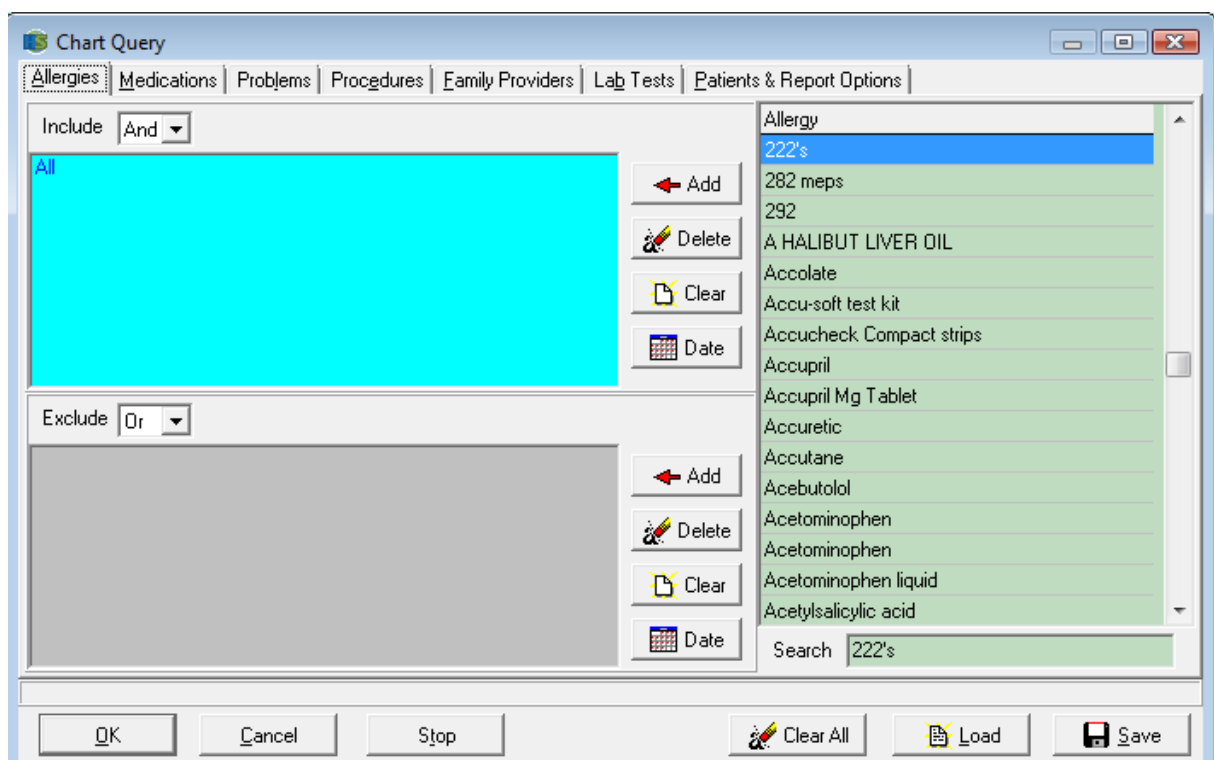
The Canadian Diabetes Association 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada recommends that patients be screened annually for nephropathy. Screening for microalbuminuria should be performed using a random urine test for albumin to creatinine ratio (ACR).

Generate a list of patients who are eligible for ACR testing using Healthscreen™

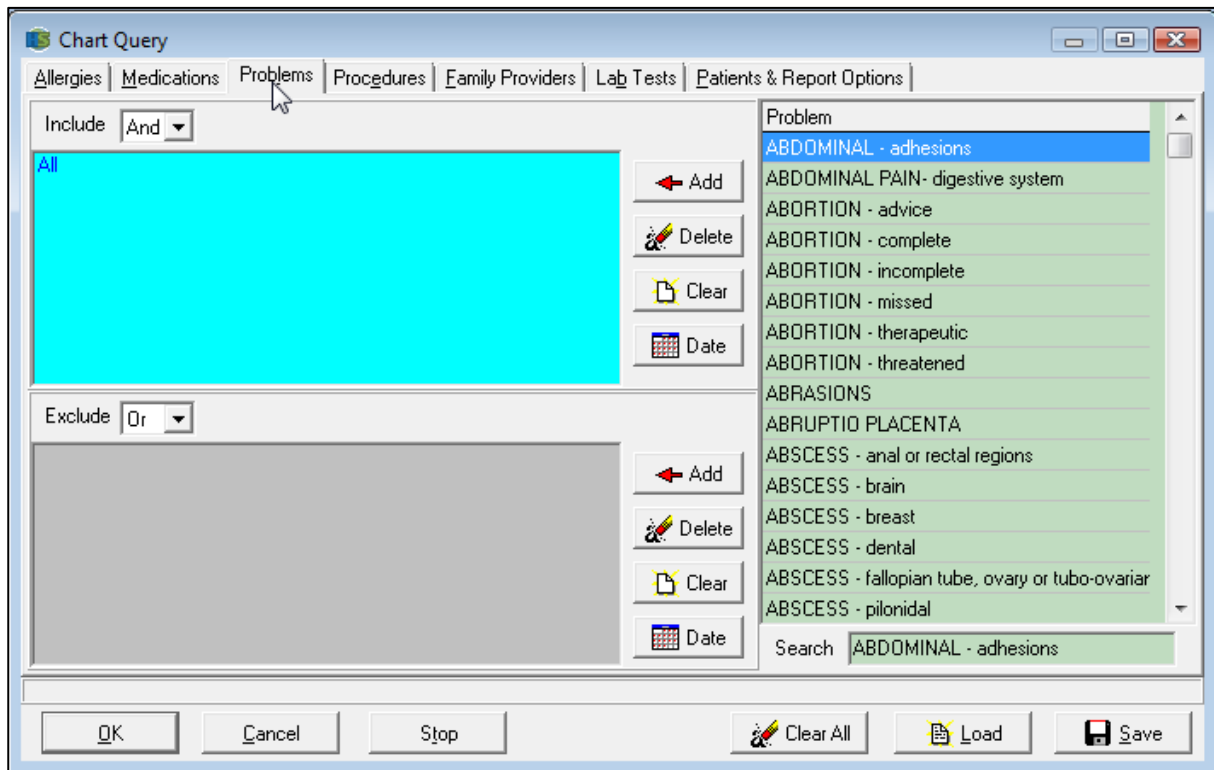
1. From the *Queries* Main Menu, select the *Chart...* option.



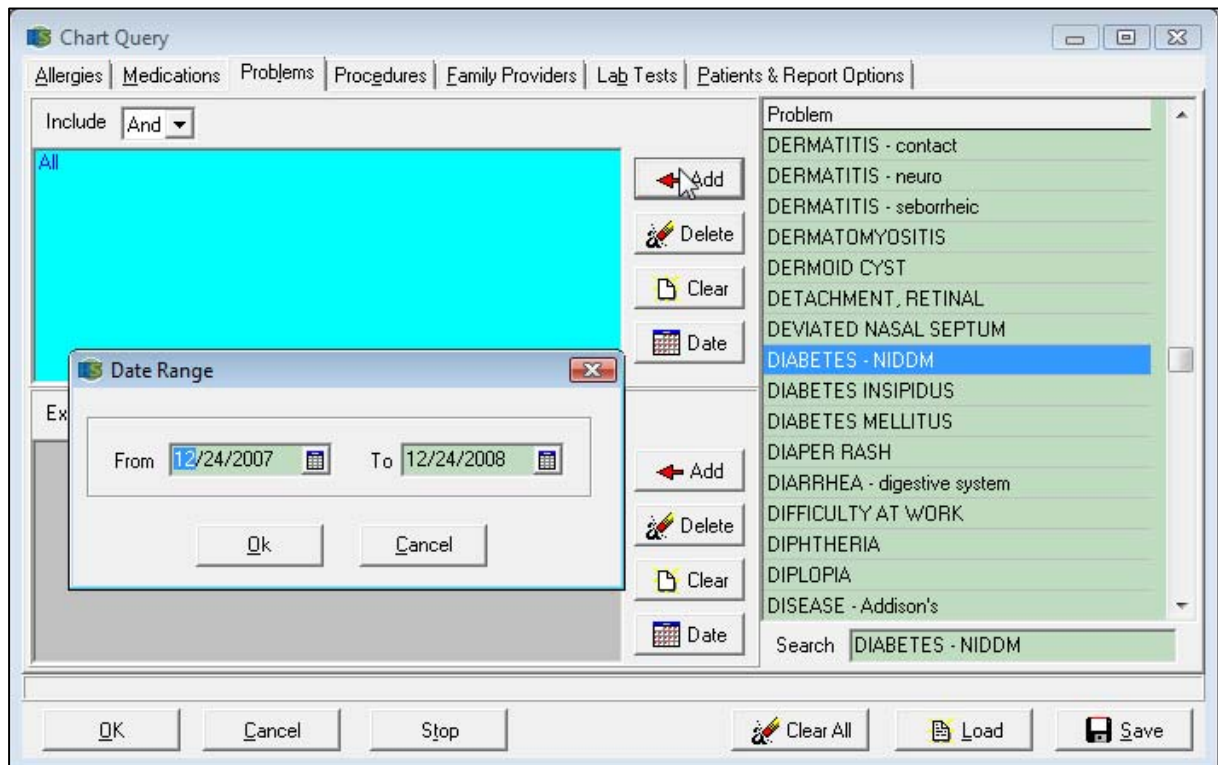
2. The *Chart Query* dialog box will appear similar to the following.



3. Select the *Problems* tab. The Dialog box will appear similar to the following. This tab will be used to identify patients with diabetes mellitus.



4. On the right side of the list are all of the same options that are available in the drop-down box when problems are entered for a patient in the *Problems* tab of Healthscreen™.
 - Click in the Search area of the Chart Query dialog box to type 'diabetes'. The highlight will move to this area of the list. Select an entry that is used in your database.
 - Click the **top Add** button in the middle of the dialog box to add the selected entry into the **Include** area at the top left and not the Exclude area at the bottom left.
 - The Date Range box will appear. Enter a date range that corresponds to the date range that the patient's problem should have started to be included in the query. To include everyone in the database, simply enter a start date that is earlier than any patient's problem start date, e.g., 01/01/1900



- Click the OK button once the date range has been entered.
- Repeat the preceding four steps until all diabetes-related entries corresponding to those used in your patient group appear in the top left area of the Chart Query dialog box.

- Beside the *Include* text, select *Or* from the drop-down box to ensure that the patients that have ANY of the problems selected will be included in the query results. The dialog box will now appear similar to the following.

Chart Query

Tab: Allergies Medications Problems Procedures Family Providers Lab Tests Patients & Report Options

Include: Or

- DIABETE Or 1 [From:12/02/1990 To:12/02/2008]
- DIABETE And 2 [From:12/02/1990 To:12/02/2008]
- DIABETES MELLITUS [From:12/02/1990 To:12/02/2008]

Exclude: Or

Problem List:

- DERMATITIS - contact
- DERMATITIS - neuro
- DERMATITIS - seborrheic
- DERMATOMYOSITIS
- DERMOID CYST
- DETACHMENT, RETINAL
- DEVIATED NASAL SEPTUM
- DIABETES - TYPE 1
- DIABETES - TYPE 2
- DIABETES INSIPIDUS
- DIABETES MELLITUS
- DIABETES, GESTATIONAL
- DIABETES, NIDDM**
- DIABETIC RETINOPATHY
- DIAPER RASH
- DIARRHEA

Search: DIABETES, NIDDM

Buttons: OK Cancel Stop Clear All Load Save

5. Select the *Lab Tests* tab. The Char Query dialog box will appear similar to the following. This tab will be used to exclude patients that have already had an ACR test in the past year.

Chart Query

Tab: Allergies Medications Problems Procedures Family Providers Lab Tests Patients & Report Options

Include: And

- All

Exclude: Or

- Albumin/creatinine ratio [From:12/02/2007 To:12/02/2008]
- MICROALB/CREAT RATIO [From:12/02/2007 To:12/02/2008]

Lab Tests List:

- MERCURY
- METANEPHRINE
- METANEPHRINES TL 24h U
- METHADONE
- METHADONE METAB.
- METHADONE METABOLITE
- METHAMPHETAMINE
- MICROALB/CREAT RATIO**
- MICROALBUMIN (24H U)
- MICROALBUMIN (RDM U)
- MICROALBUMIN 24h U
- MICROALBUMIN R U
- Microalbumin(random urine)
- Microalbumin/creatinine ratio
- Microbiology

Search: MICROALB/CREAT RATIO

Buttons: OK Cancel Stop Clear All Load Save

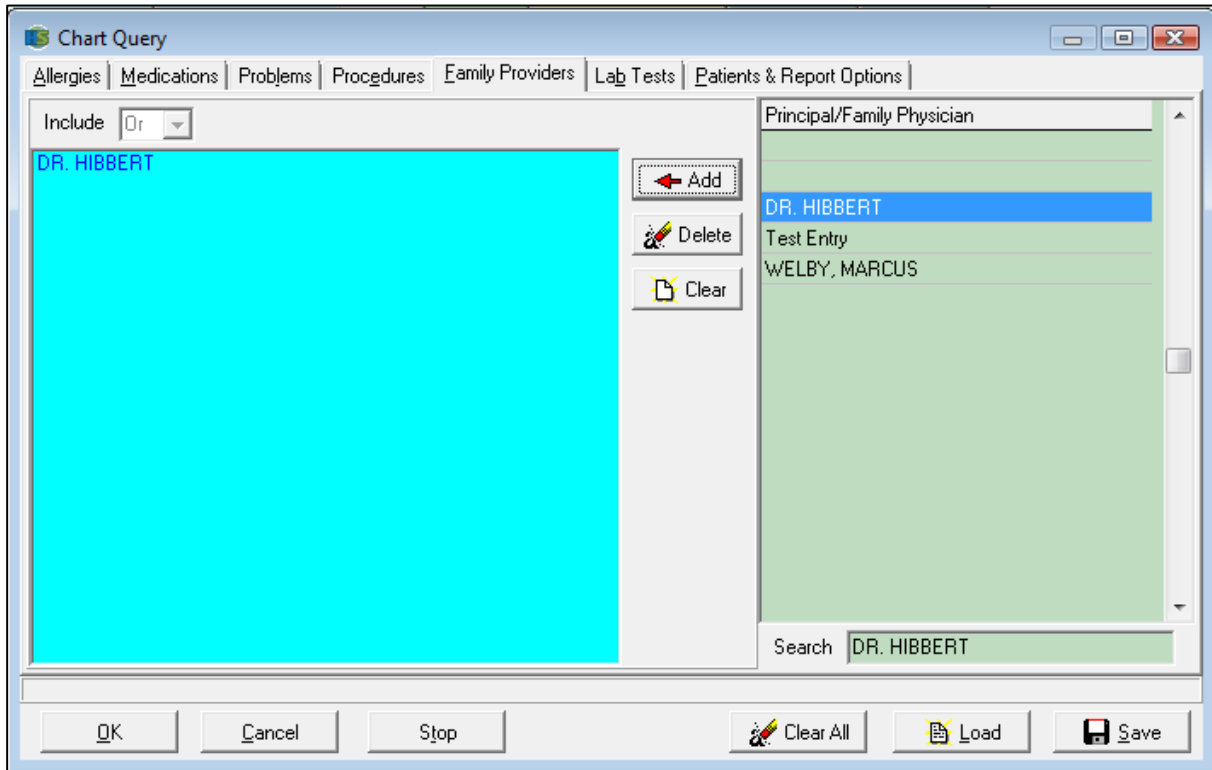
6. On the right side of the list are all of the same options that are available in the drop-down box when labs are entered for a patient in the *Lab, Proced* tab of Healthscreen™.
- Click in the Search area of the Lab tab of the Chart Query dialog box to type 'microalb'. The highlight will move to this area of the list. Select an entry that is used in your database.
 - Click the **bottom** *Add* button in the middle of the dialog box to add the selected entry into the **Exclude** area at the bottom left and not the **Include** area at the top left.
 - The Date Range box will appear. Enter a date range that corresponds to the date range that the patient's lab test should have been done to be excluded in the query results. Enter the minimum date as a year prior to the current date and the maximum date as the current date.
 - Click the *OK* button once the date range has been entered.
 - Repeat the preceding four steps until all ACR-related entries corresponding to those used in your patient group appear in the bottom left area of the Chart Query dialog box.
 - Beside the *Exclude* text, select *Or* from the drop-down box to ensure that the patients that have ANY of the lab tests selected will be excluded from the query results.

7. Select the *Patients and Report Options* tab. The tab will appear similar to the following.

The screenshot shows the 'Chart Query' application window with the 'Patients & Report Options' tab selected. The window has a blue title bar and a tabbed interface. The 'Patients & Report Options' tab is active, showing several filter sections. The 'Gender' section has radio buttons for 'Both' (selected), 'Male', and 'Female'. The 'Patient Birth Date Range' section has date pickers for 'From' (01/01/1900) and 'To' (12/02/2008), a 'Born in' dropdown menu set to 'January', and a 'Set Birth Date Range' checkbox. The 'Postal Code' section has a 'Starts with' text box. The 'Visit Date Range' section has date pickers for 'From' (12/02/2006) and 'To' (12/02/2008), a 'Visit Reason' text box, and a checked 'Set Visit Date Range' checkbox. The 'Report Type' section has radio buttons for 'List' (selected), 'Excel', and a checkbox for 'Confidential'. At the bottom, there are buttons for 'OK', 'Cancel', 'Stop', 'Clear All', 'Load', and 'Save'.

- To include only current patients in the query results, select a date range within which patients should have visited your primary care practice at least once. Ensure that the *Set Visit Date Range* checkbox is selected.
- To only include a specified age range and gender of patients in the query results, set those options at the top of this tab.

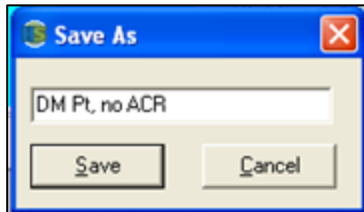
8. Select the *Family Providers* tab. The Chart Query dialog box will appear similar to the following.



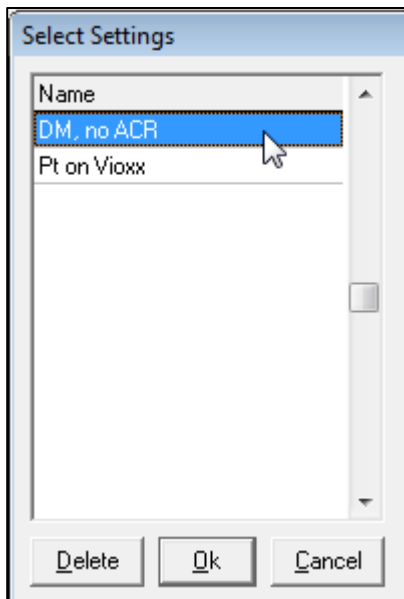
- Select each provider whose patients should be included in the query results. If you want to include patients of all providers, do not make any selections in this tab.
9. Click the OK button to run the query and view the results. You have generated a report of your patients with diabetes mellitus who have not had an ACR test in the past year.
- Save or Print the query results if desired. Click the *C*lose button to return to the Chart Query dialog box.
10. To exit the Chart Query dialog box, click the *C*ancel button.

11. The Chart Query provides additional options:

- To save all of the settings in all of the tabs in the Chart Query dialog box, click the save button and provide a name for the query you have designed. Click the Save button to exit this box. Note that you are not saving the results of the query, simply the question you have designed.



- To use this query at another time, from the Chart Query dialog box, and click the *Load* button.
 - i) Select the desired query, then click the OK button.
 - ii) Make any modifications as necessary in the various tabs then Click OK to view the results.



- Click the *Clear All* button in the Chart Query dialog box to clear all settings in all tabs.

Potential Further Application of this Toolkit

The College of Family Physicians of Canada

CME Pearls™ Credits

Pearls™ is an evidence-based practice reflection exercise. It is a semi-structured, self-directed learning activity designed to enhance the introduction of new knowledge into your practice.

Three (3) Mainpro-C credits can be claimed for every Pearls exercise completed.

Pearls™ encourages participants to link learning to practice, incorporate evidence into clinical decision-making and reflect upon the outcomes created by this process.

How It Works

Pearls™ consists of an exercise designed to take you logically through a reflective learning process involving five key steps:

Step #1 Formulate a specific practice reflection question.

Step #2 Perform a literature search to identify appropriate information to answer the question.

Step #3 Evaluate the information by critically appraising the key article(s).

Step #4 Make a practice decision based on this information.

Step #5 Then, two months later, evaluate the impact of this decision on your practice.

Use this toolkit as an aid to help you with your practice question, decision, and impact assessment.

See the College of Family Physicians of Canada website for further information on Pearl™ CME credits:

<http://www.cfpc.ca/English/cfpc/cme/pearls/>

C. Resources

WEBSITES

This list of websites is meant to get you started and contains relevant materials as of this publication date November 1, 2009. It is not meant to be exhaustive and should serve as a jumping off point to your preventive care knowledge acquisition.

Canadian Task Force on Preventive Health Care: <http://www.ctfphc.org>

This website is designed to serve as a practical guide to health care providers, planners and consumers for determining the inclusion or exclusion, content and frequency of a wide variety of preventive health interventions, using the evidence-based recommendations of the Canadian Task Force on Preventive Health Care (CTFPHC)

Guidelines Advisory Committee: www.gacguidelines.ca

The GAC does not develop guidelines but reviews the literature for existing guidelines in a clinical topic area. Guidelines are endorsed based on the methodological rigour, the quality of linkage between evidence and recommendations for best clinical practices, and applicability in Ontario

Ministry of Health and Long-Term Care: <http://www.health.gov.on.ca>

Within the Ministry site, click on the Ontario health initiative "Colon Cancer check" for updated information: <http://coloncancercheck.ca/>

Please also see their chronic disease prevention and management page which has links to the Ministry's chronic disease prevention and management framework: <http://www.health.gov.on.ca/english/providers/program/cdpm/index.html#1>

The College of Family Physicians of Canada – Primary Care Toolkit for Family Physicians: <http://toolkit.cfpc.ca/en/index.php>

This site's purpose is to help interpret, share and disseminate knowledge and management information to primary care practitioners.

A current, searchable list of published Canadian clinical practice guidelines is available on the **Canadian Medical Association's** Home Page: <http://www.cma.ca/cpgs/>

ARTICLES of Interest

Anderson, K.K., Sebaldt, R.J., Lohfeld, L., Burgess, K., Donald, F.C., and J. Kaczorowski. Views of family physicians in southwestern Ontario on preventive care services and performance incentives. *Family Practice*. 2006; 23: 469-471.

Ansano, T.K., Toma, D., Stern H.S., and McLeod, R.S. Current awareness in Canada of clinical practice guidelines for colorectal cancer screening. *Canadian Journal of Surgery*. 2004; 47(2): 104-108.

Beckett Edwards, J., and F. Tudiver. Women's preventive screening in rural health clinics. *Women's Health Issues*. 2008;18: 155-166.

Beaulieu, M.D., Hudon, E., Roberge, D., Pineault, R., Forte D., and J. Legare. Practice guidelines for clinical prevention: do patients, physicians and experts share common ground? *Canadian Medical Association Journal*. 1999; 161 (5): 519-523.

Litaker, D., Ruhe, M., and S. Flocke. Making sense of primary care practices' capacity for change. *Translational Research*. 2008; 152 (5): 245-253.

Vogt, T.M., Feldstein, C.C., Aickin, M., Weiming R.H. and A.R. Uchida. Electronic medical records and prevention quality: the prevention index. *American Journal of Preventive Medicine*. 2007; 33(4): 291-296.

Woodward, C.A., Hutchison, B.G., Abelson, J. and G. Norman. Do female primary care physicians practise preventive care differently from their male colleagues? *Canadian Family Physician*. 1996 December; 42: 2370–2379.

- *It is important that primary care practitioners learn to fully utilize the query and reporting capabilities of their software to fully maximize preventive care services.*